UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

33794 7590 MATTHIAS SCHOLL 14781 MEMORIAL DRIVE SUITE 1319 HOUSTON, TX 77079 08/05/2011

EXAMINER

PARVINI, PEGAH

ART UNIT PAPER NUMBER

1731

DATE MAILED: 08/05/2011

|   | APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-----------------|-------------|----------------------|---------------------|------------------|
| • | 10/598,362      | 08/25/2006  | Jiansheng Fu         | WHKY-00101-NUS      | 3176             |

TITLE OF INVENTION: PIGMENT HAVING ANGLE DEPENDENCE OF THE INTERFERENCE COLORS AND ITS PRODUCTION PROCESS

| APPLN. TYPE    | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | YES          | \$755         | \$300               | \$0                  | \$1055           | 11/07/2011 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

### PART B - FEE(S) TRANSMITTAL

### Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

| ppropriate. All further andicated unless corrected uning notificated unintenance fee notificated to the control of the control | ed below or directed oth  | or transmitting the 1880 of the Patent, advance or nerwise in Block 1, by (a   | rders and notification of an appecifying a new corre                                 | maintenance fees w<br>spondence address;                           | rill be m<br>and/or   | ailed to the current (b) indicating a sepa  | correspondence address as rate "FEE ADDRESS" for  |
|--|---|--|--|--|---|---|---|
|  |   | ock 1 for any change of address)   | Fee  | (s) Transmittal. Thi   | s certific  | ate cannot be used fo   | domestic mailings of the or any other accompanying or formal drawing, must  |
| MATTHIAS SO<br>14781 MEMORI<br>SUITE 1319<br>HOUSTON, TX   | IAL DRIVE   | I he<br>Sta<br>add<br>trar   | roby cortify that thi  | s Eagle)   | of Mailing or Transı<br>Transmittal is being<br>cient postage for firs<br>SSUE FEE address<br>273-2885, on the da | nission deposited with the United t class mail in an envelope above, or being facsimile te indicated below. |   |
| ,  |   |  |  |  |   |   | (Depositor's name)  |
|  |   |  |  |  |   |   | (Signature)   |
|  |   |  |  |  |   |   | (Date)  |
| APPLICATION NO.  | FILING DATE   |  | FIRST NAMED INVENTOR   | 1  | ATTOR   | NEY DOCKET NO.  | CONFIRMATION NO.  |
| 10/598,362   | 08/25/2006  |  | Jiansheng Fu   |  | WHI   | XY-00101-NUS  | 3176  |
| APPLN. TYPE  | SMALL ENTITY  | ISSUE FEE DUE  | PUBLICATION FEE DUE  | PREV. PAID ISSUE   | E FEE   | TOTAL FEE(S) DUE  | DATE DUE  |
| nonprovisional   | YES   | \$755  | \$300  | \$0  |   | \$1055  | 11/07/2011  |
| •  |   |  | ·<br>  | 7  |   | \$1033  | 11/0//2011  |
| EXAM   |   | ART UNIT   | CLASS-SUBCLASS   | ]  |   |   |   |
| PARVINI,   | , PEGAH ence address or indication  | 1731   | 106-415000   |  |   |   |   |
| "Fee Address" indi<br>PTO/SB/47; Rev 03-0<br>Number is required.  ASSIGNEE NAME AD<br>PLEASE NOTE: University  | ND RESIDENCE DATA   | (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.  THE PATENT (print or type)  e data will appear on the patent. If an assignee is identified below, the document has been filed for |  |  |   |   |   |
| recordation as set forth (A) NAME OF ASSIC   | h in 37 CFR 3.11. Comp<br>GNEE  | oletion of this form is NO   | T a substitute for filing an  (B) RESIDENCE: (CIT)                                   | assignment. Y and STATE OR C                                       | OUNTR   | Y)  | _   |
| lease check the appropri   | iate assignee category or   | categories (will not be pr   | inted on the patent):  | Individual 🖵 Co  | rporatio  | n or other private gro  | up entity Government  |
|  | are submitted: To small entity discount profes                                      | <ul> <li>b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)</li> <li>A check is enclosed.</li> <li>Payment by credit card. Form PTO-2038 is attached.</li> <li>The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).</li> </ul>                              |  |  |   |   |   |
| _ '  | tus (from status indicated  | · · · · · · · · · · · · · · · · · · ·  |  |  |   |   |   |
|  | s SMALL ENTITY statu  |  | b. Applicant is no lor   |  |   |   |   |
| NOTE: The Issue Fee and<br>nterest as shown by the r   | d Publication Fee (if requeecords of the United Sta                                 | uired) will not be accepted<br>tes Patent and Trademark  | d from anyone other than<br>Office.  | the applicant; a regi  | stered at   | torney or agent; or the   | e assignee or other party in  |
| Authorized Signature   | a.  |  |  | Date   |   |   |   |
| Typed or printed name  |   |  |  | Registration N   | O   |   |   |
| n application. Confident<br>ubmitting the completed<br>his form and/or suggesti  | tiality is governed by 35<br>I application form to the<br>ons for reducing this but | U.S.C. 122 and 37 CFR<br>USPTO. Time will vary<br>rden, should be sent to the  | 1.14. This collection is es<br>depending upon the indi-<br>e Chief Information Offic | timated to take 12 r<br>vidual case. Any co<br>er, U.S. Patent and | ninutes t<br>mments<br>Tradema  | o complete, including<br>on the amount of tin<br>ark Office, U.S. Depa                                      | by the USPTO to process) g gathering, preparing, and ne you require to complete rtment of Commerce, P.O. or Patents, P.O. Box 1450. |

Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE                        | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.    | CONFIRMATION NO. |
|-----------------|------------------------------------|----------------------|------------------------|------------------|
| 10/598,362      | 08/25/2006                         | Jiansheng Fu         | WHKY-00101-NUS 3176    |                  |
| 33794 75        | 90 08/05/2011                      | EXAMINER             |                        |                  |
| MATTHIAS SCI    |                                    | PARVINI, PEGAH       |                        |                  |
| SUITE 1319      | 14781 MEMORIAL DRIVE<br>SUITE 1319 |                      |                        | PAPER NUMBER     |
| HOUSTON, TX 7   | 7079                               |                      | 1731                   |                  |
|                 |                                    |                      | DATE MAILED: 08/05/201 | 1                |

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 408 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 408 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## **Privacy Act Statement**

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

|   | Application No.  | Applicant(s)   |                  |
|---|--|--|------------------|
|   | 10/598,362   | FU ET AL.  |                  |
| Notice of Allowability  | Examiner   | Art Unit   |                  |
|   | PEGAH PARVINI  | 1731   |                  |
| The MAILING DATE of this communication apply.  All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313  | (OR REMAINS) CLOSED i<br>) or other appropriate comm<br>IGHTS. This application is<br>3 and MPEP 1308. | n this application. If not included unication will be mailed in due could be the could be the could be applied in due could be applied to the could be | rse. <b>THIS</b> |
|   | <u> 3/2011</u> .   |  |                  |
| 2. 🛮 The allowed claim(s) is/are <u>11 and 13-31</u> .  |  |  |                  |
| <ul> <li>3. Acknowledgment is made of a claim for foreign priority una.</li> <li>a) All b) Some* c) None of the:</li> <li>1. Certified copies of the priority documents have</li> <li>2. Certified copies of the priority documents have</li> <li>3. Copies of the certified copies of the priority documents have</li> <li>International Bureau (PCT Rule 17.2(a)).</li> </ul> | e been received.<br>e been received in Application   | on No  | from the         |
| * Certified copies not received:  |  |  |                  |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  4.   A SUBSTITUTE OATH OR DECLARATION must be subm   | MENT of this application.  itted. Note the attached EX   | AMINER'S AMENDMENT or NOTI   |                  |
| INFORMAL PATENT APPLICATION (PTO-152) which giv   | es reason(s) why the oath o  | r declaration is deficient.  |                  |
| 5. CORRECTED DRAWINGS ( as "replacement sheets") mus  | st be submitted.   |  |                  |
| (a) 🔲 including changes required by the Notice of Draftspers  | son's Patent Drawing Revie   | w ( PTO-948) attached  |                  |
| 1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date  | ·  |  |                  |
| (b) ☐ including changes required by the attached Examiner Paper No./Mail Date   |  |  |                  |
| Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t  |  |  | :k) of           |
| <ol> <li>DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT</li> </ol>   |  |  | the              |
|   |  |  |                  |
| Attachment(s)  1. ☐ Notice of References Cited (PTO-892)  2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date  4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material   | 6. ☐ Interview S<br>Paper No.<br>7. ☑ Examiner's   | nformal Patent Application<br>Summary (PTO-413),<br>/Mail Date :<br>Amendment/Comment<br>Statement of Reasons for Allowar  | nce              |
|   |  |  |                  |

### **DETAILED ACTION**

#### **EXAMINER'S COMMENT**

#### Election/Restrictions

Claims 11, 13-17 and 24-31 are directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(B), claims 18-23, directed to the process of making or using an allowable product, previously withdrawn from consideration as a result of a restriction requirement, are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Because all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, the restriction requirement as set forth in the Office action mailed on 6/5/2009 is hereby withdrawn. In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

#### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Matthias Scholl on 7/26/2011.

The application has been amended as follows:

In the claims:

Claim 24, lines 3 and 4, delete "that is well-defined".

Claim 28, lines 3 and 4, delete "that is well-defined".

The following is an examiner's statement of reasons for allowance: The prior art do not disclose or teach a pigment exhibiting color-shifting effect wherein the pigment comprises a base material, a first layer having a first optical thickness, a second layer having a second optical thickness, a third layer, and optionally an outer protective layer wherein said base material is mica, said first layer and said third layer each independently comprise a metal oxide having a high refractive index, said second layer comprises a metal oxide having a low refractive index, said base material is coated with (1) said first layer, (2) said second layer, (3) said third layer and optionally (4) said outer protective layer, said first layer being in direct contact with said base material, said second layer being in direct contact with said third layer, and said protective layer being in direct contact with said first layer and said third layer, and said protective layer being in direct contact with said third layer; said first optical thickness is greater than an optical thickness of silver-white interference color and smaller than an

Art Unit: 1731

optical thickness of golden-yellow interference color; and the pigment exhibits a colorshifting effect.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PEGAH PARVINI whose telephone number is (571)272-2639. The examiner can normally be reached on Monday to Friday 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/598,362 Page 5

Art Unit: 1731

/Pegah Parvini/ Examiner, Art Unit 1731

/JERRY A LORENGO/ Supervisory Patent Examiner, Art Unit 1731